

Section 3-1: Parallel Lines and Transversals

By the end of this lesson, you should be able to answer:

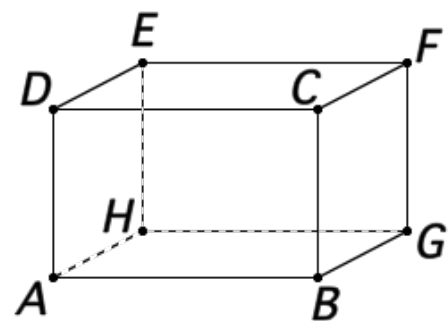
- How do you identify the relationships between two lines or two planes?
- How do you name angle pairs formed by parallel lines and transversals?

Define the following:

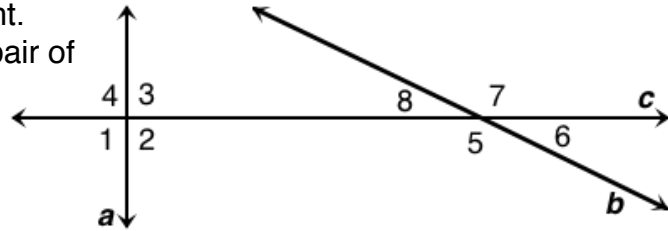
1. Parallel Lines
2. Skew Lines
3. Parallel Planes
4. Transversal
5. Interior Angles
6. Exterior Angles
7. Consecutive Interior Angles
8. Alternate Interior Angles
9. Alternate Exterior Angles
10. Corresponding Angles

Example 1: Identify each of the following using the box.

- a. All segments parallel to \overline{BC}
- b. A segment that is skew to \overline{EH}
- c. A plane parallel to plane ABG



Example 2: Refer to the figure at the right. Classify the relationship between each pair of angles as *alternate interior*, *alternate exterior*, *corresponding*, or *consecutive interior angles*.



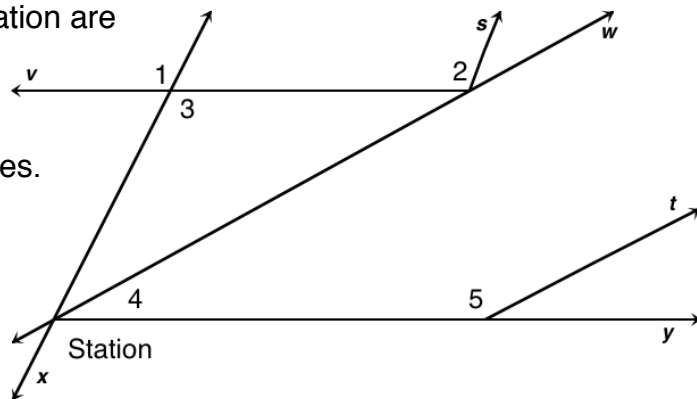
a. $\angle 2$ and $\angle 6$

b. $\angle 1$ and $\angle 7$

c. $\angle 3$ and $\angle 8$

d. $\angle 3$ and $\angle 5$

Example 3: The driveways at a bus station are shown. Identify the transversal connecting each pair of angles in the figure. Then classify the relationship between each pair of angles.



a. $\angle 1$ and $\angle 2$

b. $\angle 2$ and $\angle 3$

c. $\angle 4$ and $\angle 5$

Problem Set:

"It has long been an axiom of mine that the little things are infinitely the most important." – Sir Arthur Conan Doyle